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Procedia Engineering 142 (2016) 342 – 348

**Procedia
Engineering**www.elsevier.com/locate/procedia

Sustainable Development of Civil, Urban and Transportation Engineering Conference

Formation of the Feasibility of Housing Projects in Vietnam Incorporating the Physical and Social Factors

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Abstract

Unlike the crisis in the U.S which mainly started from the secondary investors and financial system, the Vietnam's housing bubble is caused by the primary realty investors. When businesses in Vietnam made lower profits, this led a rush to investments in the real estate market even from those primary investors who are newly established, lack of professionalism of housing development and knowledge of urban economics. Many of their projects were lack of feasibility as products could not be sold or developed, leaving the market frozen with huge numbers of empty plots, houses, and apartments. The review on Urban Sociology theories from the Chicago school to the recent researches on Urban Residential Location combining with deep analysis on the situation of Vietnam and the U.S had clarified the causes of housing crisis in Vietnam. Many housing projects within the country are prepared without incorporating certain physical and social factors, leading to the lack in feasibility and therefore largely seen as the origination of housing crisis. The proposed solution of this research was to incorporate physical and social factors in the projects, represented by the correct selection of the appropriate Housing Status and Dwelling Quality for each social group.

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Peer-review under responsibility of the organizing committee of CUTE 2016

Keywords: Feasibility; real-estate ; social segregation; urban transportation

1. Introduction

Many economists and researches in Vietnam claimed that a country that is deeply integrating into the world economy cannot avoid the consequences of the crisis with specific solutions therefore proposed the solutions to recover the housing market mainly be in the financial sector similar of the U.S [1]. The consequence of some tight monetary policies to check inflation from the central bank and to strengthen control over debts in Vietnam may freeze capital for real estate, putting it into stagnation.

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An analysis of the causes of the Housing crisis shows that the lack of feasibility of the Housing projects prepared by the primary investors is largely blamed for the cause of crisis in Vietnam. The formation of feasible housing projects for each social group, incorporating Physical and Social factors, particularly the rules of interaction between Urban Transportation and Social Segregation must be examined to contribute as an effective solution to solve the housing crisis in Vietnam.

2. Overview of the main causes of the housing crisis in the United States and in Vietnam

In the United States, in 2005, 1,283,000 new single-family houses were sold, compared with an average of 609,000 per year during 1990-1995. The housing bubble started when the Housing prices peaked in early 2006 then started to decline in 2007 and reached new lows in 2012. On December 30, 2008, the Case-Shiller home price index reported its largest price drop in its history.

The bursting of the housing bubble led to increased mortgage foreclosures and caused the value of mortgage-backed securities to fall [2]. Many subprime loans were packaged into mortgage-backed securities (MBS) and ultimately defaulted, contributing to the financial crisis of 2007-2008. Mortgage-backed securities were often combined into collateralized debt obligations (CDOs), which may include other types of debt obligations.

Gwartney, Macpherson, Sobel, and Stroup in 2008 identified four factors leading to the housing bubble and credit crisis in the U.S: relaxed mortgage lending standards, low short-term interest rate policy of the Fed, increased leveraging by investment banks and increased debt-to-income ratio for households [3]. Government failed regulation housing policies and the top subprime lenders whose loans provided to the secondary realty investors are largely blamed for triggering the housing crisis [2]. The U.S government had to establish policies to protect the integrity of the financial system to solve the crisis which includes:

- Subsidiary, Bailout to stabilize the economy: U.S Secretary of the Treasury had to spend up to purchase distressed assets from financial institutions, especially mortgage-backed securities, and supply cash directly to bank. The Federal Reserve carries out a limited bailout for homeowners who were unable to pay their mortgage debts [4].
- Implement changes in policy to control the financial system: Policies of the U.S President such as a “Financial Regulatory Reform” was announced on June, 2009 preventing important financial institutions whose failure could threaten the entire system slip through the regulatory cracks. So in the U.S, unclogging the legal and financial system is regarded as the main key to the recovery and prevention of the crisis.
- In Vietnam: When businesses made lower profits, this led a rush to investments in the real estate market of Vietnam even from those primary investors who are lack professionalism of housing development and knowledge of urban economics. The consequence is that many of the housing projects in Vietnam are set to fail from the start and their products cannot be sold or developed. Housing prices start to drop from 2008 (fig. 1).

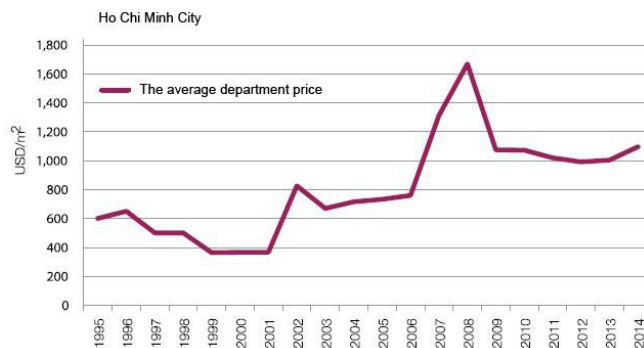


Fig. 1. Apartment market sales price 2001-14 in Ho Chi Minh City [5]

Although not many of the Vietnam financial institutions have suffered heavy losses due to the effect of this crisis, many economists in Vietnam claimed that a country that is deeply integrating into the world economy cannot avoid the consequences of the crisis by specific solutions. Although the crisis started right from the non-feasible projects of the primary investors, many economists and government institutes still focused on the financial sector, proposed the two solutions similar to that of the US in the lending of real estate investment [1], which are:

- **Financial Subsidiaries:** Many banks have stepped up lending to the housing sector. Techcombank and ACB are offering loans of up to 70 percent of an apartment's value to buyers for 20-25 years. Vietcombank has set aside VND10 trillion (US\$458.5 million) for lending to home buyers. Vietinbank, the country's largest partly private lender, signed an agreement with a property firm to lend VND20 trillion (\$952.3 million) between 2016 and 2020, so the Ministry of Planning and Investment warned about the risk of a housing bubble, when property loans increase.
- **Implement changes in financial policy, regulations, oversight, and enforcement in the financial system:** The Government has been strict in executing monetary policies and restructuring the banking system and has placed stronger financial requirements on property developers, strengthen control over debts.

The bankruptcy rate of real estate companies increased by 24.1% compared to 2011, in 2012, the loss companies accounted for 30%, the bankruptcy companies in this years accounted for 4.7% of the total real estate and construction companies [6]. Actually, the report noted that many financially incapable and inexperienced enterprises also entered the housing market with little professionalism; nevertheless, most of them are newly established or from unrelated fields such as garment and textile, petroleum and agriculture. Those primary investors are unable to achieve the feasibility of housing projects when provided inappropriate locations and infrastructure system for the residents of certain social groups. In Vietnam, unclogging the legal and financial system cannot be regarded as the only main key to the recovery, but physical and social factors must be examined and incorporated in the solutions.

3. Review of the urban sociology theories related to the physical and social factors in urban residential zones

3.1. The Von Thunen Model (1783-1850)

The Von Thunen model of agricultural land use hypothesized that there are four rings of agricultural activities surrounding the city which location depending on the transportation cost of certain types of products and the physical distances to the center of the city. The price of land increases the closer it is to the city. The Von Thunen model is a fine illustration of the relation between land use separation and transportation cost [7].

3.2. The Chicago School of Urban Sociology

The Chicago School of Urban Sociology focused on human behavior as determined by social structures and physical environmental factors. It adapted the Darwinian theory of evolution of animals in their environments and applied it to humans in their society who are considered to be in pursuit of their own destinies [7]. The arrangement of public and private space and the degree of connectivity and accessibility which refer to the urban spatial structure and social segregation in residential areas could be shown in the 3 models proposed by the Chicago School (Fig 2):

- **Concentric rings model (1924):** Created by Ernest Burgess of the Chicago urban sociology school, who was the first to explain the social segregation distribution of social groups within urban areas in his model.
- **Concentric rings model** is a model of a city which grows outward from a central point in a series of rings. The innermost ring represents the Central Business District (CBD). A second ring surrounding the CBD, which contains industry and poorer quality housing, is regarded as the zone of transition. The third ring contains

housing for the working-class. The fourth ring has better housing occupied by the middle-class. The outermost ring is called the commuters' zone - the high quality of residences owned by the rich people who choose to live in the suburbs and take a daily commute into the CBD to work [7].

- Sector model (1939) of Homer Hoyt argued that a city develops in sectors instead of rings. Certain areas of a city are more adaptive for various activities, whether by some features of environmental reasons. As the city grows and these activities flourish and expand outward, they do so in a wedge and become a sector of the city [7].
- The high quality housing districts may attract new developments expanding from the outer edge of that district (such as the Phu My Hung residential zone in Saigon South). In the sector model a high class housing area will be in the form of a section but not a complete ring (several housing projects built close to Phu My Hung project tried to continue the high class housing ring but failed). The Sector model of Hoyt could be regarded as just a refinement rather than a radical restatement of the concentric model of Burgess.
- Multiple Nuclei Model (1945) describes the layout of a city, and says that even though a city may have begun with a CBD, the other smaller CBDs will develop on the outskirts of the city near the more valuable housing areas to allow shorter commutes. The reason is that similar activities are automatically grouped in one area, meaning that further on some incompatible activities cannot be clustered in the same area [7]. The notable example of Multiple Nuclei Model in Vietnam is that of the Saigon city which comprises 3 centres Saigon, Cho Lon and Gia Dinh.

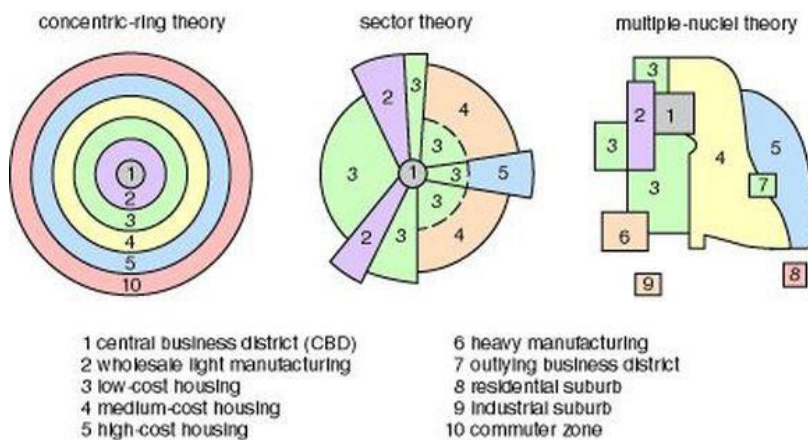


Fig. 2. Models of Concentric-ring, Sector and Multiple-Nuclei theories. [8]

3.3. Status, Quality and the Other Trade-Off (2000): Towards a New Theory of Urban Residential Location

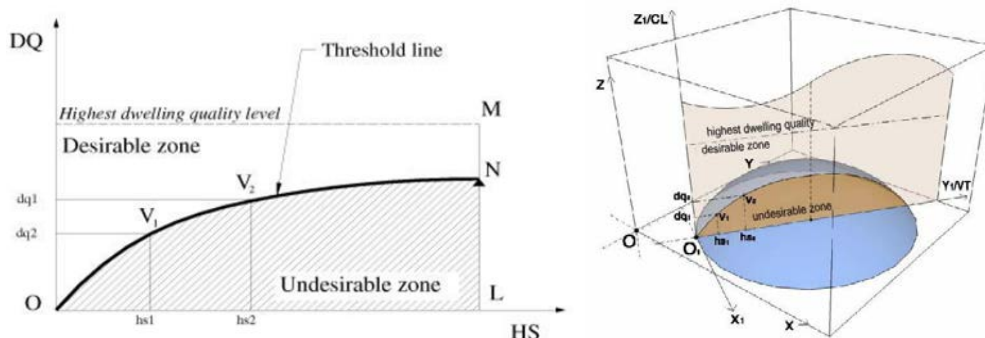


Fig. 3. Housing Status (HS), Dwelling Quality (DQ) 2D and 3D Threshold Surface [9]

The main contents of this study are:

- Cities has multi-polar structures, the pole(s) of development are defined as the locations with highest social status. Social status may represent wealth, political or trading power, culture, race, education, etc. depending on the social forms;
- Urban residential areas form concentric belts (rings) around social status poles;
- Housing value is composed of 2 elements: Housing Status (HS) of the location and Dwelling Quality (DQ);
- Each value of HS has a corresponding DQ value. The locus of the locations creates a threshold surface in 3D space. This surface divides housing stock into two zones: The desirable zone and the Undesirable zone;
- At lower value levels, housing price is determined mainly by use value. At higher value levels, the price is determined by exchange value.
- The differences between classic model and SQTO model: Physical Centre (fixed) - Status Centre (moving); Physical Distance - Calibrated Distance.

From an overall view: the theories mentioned above from Von Thunen to the Chicago School and other sociologists proved that in the urban structure there exist relations between social order and physical space; between the physical distance of urban transportation and the social distance represented by the social segregation [9], following the natural selection rules of "survival of the fittest" of Darwinism, driven by the invisible hand.

3.4. Role of social factors and the critiques on the models of the Chicago School of Urban Sociology.

Walter Firey criticized the Concentric model and identified that market competition is not the only force that drives the formation of the urban structure; non-market power are also important. Some sociologists even claimed: "Social power could bend or blunt the market rules". That is why no cities are formed exactly as the models of Chicago school described. Social power can even change the Social Segregation situation by specific efforts. The worldwide financial crisis had also made clear that social powers such as psychological forces can even imperil the economic systems today. The famous economist John Maynard Keynes used the term "animal spirits" to refer to emotional mindsets, George Akerlof and Robert Shiller acclaimed that "animal spirits", herd behavior and other social interactions are driving financial events worldwide. Both experts detail the most pervasive effects of the narrative stories telling each other about making economic fortunes [10].

Regarding the behavioral economic problem in Vietnam, we can see that the primary investors in the realty market are firstly rushing to develop mostly high-class housing projects, predicting that high-class housing will always yield the highest profit, despite the low environment quality for people of high-class status when located close to the city center. The developers are focusing on high-end housing rather than affordably priced apartments, estimated that between 2016 and 2018, 70 per cent of housing units would be in the luxury segment. But actually deluxe condo projects, whose apartments cost between VND4 billion (US\$186,411) and VND6 billion (\$279,616) each, are not attractive to buyers. After the housing bubble burst, many of the primary investor rushed to convert their high-class housing projects into social housing despite the location lacking urban transportation facilities for the low-income inhabitants to contact their income sources.

4. Solutions for the formation of feasible Housing projects incorporating the physical and social factors

An analysis and evaluation of the feasibility of a housing project should be mostly carried on, such as: legal/statutory approvals, site environmental impact, the budget relative to stakeholders, housing prices affordable for client requirements, the potential to build [11], accommodation that might be included or excluded with possible juxtaposition of inhabitants from a diversity of social groups. On this study focusing on the incorporation of physical and social factors at the strategic level, the feasibility of the housing project will be examined mainly on the possibility of achieving the two typical housing values as the research mentioned: Housing Status (HS) of the location and Dwelling Quality (DQ) [9]. These two values will be represented by the correct selection of the site and the provision of appropriate technical and social infrastructure to projects, suitable with the demands and abilities of the low or high income social group.

After incorporating the physical and social factors on social segregation and urban transportation to achieve the feasibility of housing projects, the solutions could be identified as:

- To avoid the wrong selection of location for the housing projects represented by the physical distance to the city center which are not suitable for inhabitants of certain social statuses.
- The theories of the Chicago school show that low-income people cannot live in zones with long physical distance to the center of the city (CBD) as they find it is difficult to approach their jobs or income sources, the Concentric, Sector and Multiple nuclei models shows that low income residents must be grouped in rings or sectors close to the CBD [10]. The idea of those primary investors incorrectly believed that zones located far away from the center of the city with low land prices should be developed to house low-income people must be criticized.
- People with high incomes prefer to live in housing zones far away from the center of the city (CBD) where they can get a better environment and quality of life. The problem of travelling long distances can be easily overcome by their private vehicles. The success of the “University Village” in Thu Duc district and “Phu My Hung” housing project in district 7, HCMC are strong evidences of this. The mistake is that many big realty companies try to locate high-class housing zones close to the center of the city where the natural air is heavily polluted and the social condition is more complicated where because of specific reasons, only a very small number of rich people prefer to live.
- To provide appropriate technical and social infrastructure facilities in the housing zones in order to satisfy the demands of certain social inhabitant groups as Sociological theories had mentioned.
- Low-income people demand open markets, not fine department stores and demand public primary schools, not high class international schools. They are not able to pay for greenery gardeners or security guards as the high-income people demand in their housing zones.
- High-income people demand housing zones with a high standard of living and high quality natural environment. Many of them are ready to utilize high-class facilities far away from their housing location as they “commute” as described in the models of the Chicago sociology school.

Adjustment and renovation of the existing infrastructure system planning in certain existing housing zones in order to be suitable with the demands of inhabitants of certain social status, take full advantage of possibilities of adjustment of the urban transportation system to improve projects.

Encourage the primary investors to include urban economics and sociological factors to ensure the feasibility in the preparation of their projects, especially the presence of sufficient urban transportation facilities in at the right selected location. The state and the investor will cooperate together in providing sufficient and urban social facilities to housing zones with inhabitants of certain social status, particularly the low-income people. Efforts of the state are necessary to manage animal spirits (as Keynes claimed) to avoid non feasible projects.

5. Conclusion

The swift urbanization process in Vietnam has led to an outbreak of demands on the real estate business, which plays an important role. But will the application of the same main solution to solve the crisis as in the U.S by “Ensure Stronger Regulation over Lending” as in the U.S to solve the housing crisis in Vietnam be enough?

The finding is as long as market rules exist, social segregation in housing will happen, to create the most favorable conditions to promote investment in the real estate industry, to match up with the demand of the market driven by social forces, the solution for the formation of the feasibility of housing projects in Vietnam is to incorporate the physical and social factors in order to achieve the appropriate project location and dwelling quality.

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